©UN NGO Policy Series No.3

New Challenges for Sustainable Development in Millennia

Edited by

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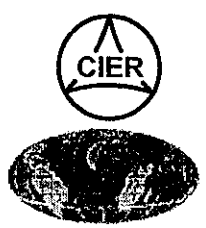
August 2003



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New Challenges for Sustainable Development in Millennia/ Ed. by Cho-han Liu, Jiunn-rong Yeh and Chung-huang Huang. Taipei: CIER Press, 2003

ISBN 986-7838-17-3 (paperback)

ISBN 986-7838-18-1 (hardback)

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12. Environment and Trade Issues in the 2002 Resources Recycling and Reuse Act of Taiwan

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This paper aims at exploring the various environment and trade issues embedded in the newly enacted Resources Recycling and Reuse Act 2002 of Taiwan The Act endeavors to strengthen waste recycling by introducing a variety of trade-related environmental measures (TREMs). Various TREMs may conflict with GATT/WTO rules to varying degrees. Whether a conflict between a TREM and GATT/WTO rules exists, and if so, a solution to accommodate the values of both free trade and environmental protection must be decided on a case-by-case basis.

Keywords: trade and environment, recycling, eco-labeling, Trade-related environmental measures, Waste Disposal Act

I. INTRODUCTION

The relationship between free trade and environmental protection has been a controversial and complex one. On the one hand, it is generally

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recognized that unless appropriate environmental policies are in place and enforced, increased trade may increase environmental damage. Some trade-related policies may indeed induce or exacerbate environmental problems by disguising true environmental costs. On the other hand, developing countries often worry that domestic environmental measures in developed countries may block them from their export markets, reducing their export earnings, and in turn hamper their capability both to satisfy basic needs and to address environmental problems [Countable].

Domestic environmental measures may restrict market access in several ways. For instance, foreign suppliers, particularly in developing countries, might have difficulty adjusting to increasingly stringent and complex environmental regulations and standards in developed country markets. Of particular concern are eco-labeling and packaging requirements as well as process and production method (PPM)[1] based regulations. Other new environmental measures such as extended producer responsibility, particularly in the form of take-back obligations, recycled content requirements, and government procurement requirements have also been identified as potential sources of difficulty for developing countries.[2]

This paper aims at exploring the various environment and trade issues embedded in the newly enacted Resources Recycling and Reuse Act 2002 of Taiwan (hereinafter "Recycling Act"). Section II introduces the Recycling Act. Section III sketches basics of the GATT/WTO rules. Section IV investigates the possible clashes between the so-called "internal regulations" (or "command-and-control regulations") contained in the Recycling Act and the GATT/WTO rules. Section V examines the possible collision between the "economic incentives/instruments" contained in the Recycling Act and the GATT/WTO rules. Section VI summarizes the initial findings and provides some strategy suggestions for achieving better harmonization between trade and environment.

II. OVERVIEW OF THE RECYCLING ACT

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[1] See infra IV.2.2 for the details.

[2] The causes for the difficulties include the lack of timely and accurate information about regulations, inadequate influence over setting and implementing standards, additional costs to adapt products to markets, inability to pass on increased costs to consumers, and insufficient capital to invest in new technologies and production methods or conduct research into substitutes. See Kenneth Ewing & Richard Tarasofsky, The Trade & Environment: Agenda Survey of Major Issues and Proposals 51 (IUCN: 1997).

Due to the lack of space and mounting opposition to the establishment of new incinerators and landfills by the neighboring public, waste management has become the most pressing environmental issue in Taiwan.

1. Waste Management Policy

The Waste Disposal Act (WDA)[3] of 1974, as last amended in 2001, was enacted to regulate the clearance and disposal of both general[4] and industrial wastes. General wastes, also known as municipal wastes, are equivalent to solid wastes in the US; industrial wastes are further divided into hazardous industrial wastes[5] and general industrial wastes.[6]

The implementing agencies[7] of WDA are obliged to collect, transport and dispose of general wastes in a sanitary manner.[8] Yet Article 15, Section 1 of WDA further prescribes:

> *Manufacturers and importers* of an article, its packing or container, which after consumption may produce wastes with one of the following characteristics, and thus may seriously pollute the environment, shall be responsible for its collection, clean-up, and disposal, and its *sellers* shall be responsible for its collection and clean-up, if such waste
>
> (a) is difficult to clean up or dispose of;
>
> (b) has contents which are not biodegradable for a long

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[3] English translation of an earlier version of WDA by Dennis Tang & Richard Ferris is available at the Environmental Protection Administration Website: http://www.epa.gov.tw (Visited on 4 August 2001).

[4] General wastes include garbage, excrement and urine, animal corpses, or other solid or liquid wastes that have the capacity to pollute the environment and are generated by non-industrial organizations. § 2-I-1, WDA.

[5] Hazardous industrial wastes are those generated by industrial enterprises and that contain toxic or dangerous substances in sufficient concentration or quantity to endanger human beings or pollute the environment. § 2-II, WDA. See also the Identification Criteria for Hazardous Industrial Wastes (3/7/2001), appeared in 160 TEPA Gazette 3 (April 2001). Ionizing radioactive waste shall be disposed of in accordance with the Atomic Energy Act.

[6] General industrial wastes are those generated by industrial enterprises and include wastes other than hazardous industrial wastes. § 2-II, WDA.

[7] Implementing agency refers to the Environmental Protection Bureau of a municipality/county/city government, or a town/village government. § 5-I, WDA.

[8] § 5-IV, WDA.

period;

(c) contains hazardous substances;

(d) maintains value for re-utilization.

The article, its packing or container as well as the scope of the businesses being responsible for its collection, clean-up, and disposal mentioned in the above Section shall be publicly announced by the regulatory agency [9] of the central government. (*emphasis added*)

Thus a reasonable interpretation would be that for the publicly announced "recyclable wastes," the designated manufacturers, importers and sellers (together known as the "responsible businesses") shall take over the responsibility of collection, clearance and disposal of such wastes from the agencies. WDA requires that these "responsible businesses" must pay a Collection-Clearance-Disposal Fee (hereinafter "Recycling Fee") in accordance with their transaction/importation volume, the type of their recyclable, and the rate set by the TEPA.[10] Recycling Fees shall be deposited into a Resource Recycling Management Fund (hereinafter "Recycling Fund") for subsidizing the actual cost of collection-clearance-disposal, paying for the necessary verification, as well as sponsoring the various recycling activities.[11] The Recycling Fund is managed by the Recycling Fund Management Board,[12] which is under the direct supervision of TEPA.[13] One may fairly characterize the recycling regime as a huge state-run enterprise.

In terms of practice, the TEPA has launched several recycling programs in a three-step approach since 1989. To elaborate, it first announced that a specific item had been selected and classified as "non-biodegradable general waste." The TEPA then promulgated a "measure" (kind of administrative rules) for collecting, cleaning up, and disposing of

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[9] Namely, TEPA, Taiwan's Environmental Protection Agency. § 4, WDA.

[10] § 16, WDA.

[11] § 17, WDA.

[12] § 4, Measures for Collecting, Clearing Away and Disposing of Waste Articles and Containers (8/12/1998), appeared in 129 TEPA Gazette 3 (Sep. 1998).

[13] See § 7, Measures for Collection, Payment, Safekeeping and Use of Trust Monies of the Recycling Fund (8/12/1998), appeared in 129 TEPA Gazette 14 (Sep. 1998); §6, Measures for Collection, Payment, Safekeeping and Use of Non-Trust Monies of the Recycling Fund (10/01/1998), appeared in TEPA, Compilation of Environmental law and Regulation, Waste 72 (Dec. 1998).

the classified article. Finally, it set up the annual percentage of recycling return for the targeted businesses. By the end of 1996, there were 8 recycling measures promulgated for recollecting 20 items ("recyclables") so designated. [14] The backbone of the TEPA recycling programs were command-and-control regulations reinforced with penalties. The driving force, the "stick", was the "annual rate of return"[15] specified by the TEPA; failure to reach such a required level would result in sanctions against the responsible business. [16] Economic incentives, such as refundable deposits,[17] played only a limited role.

A fundamental problem with such recycling programs was the ambiguity of the sharing of the responsibility for recycling. On the surface, it is the "responsible business" (commonly known as "producers" elsewhere), i.e., "manufacturers, importers and sellers" of a designated recyclable. However, it is far from clear what share or percentage of such liability should be allocated for each category of the "producers"[18], and if the responsibility for recycling is joint and several among each of the targeted business groups (among manufacturers, importers, as well as sellers) of the recyclable goods.

In early years the TEPA utilized its broad statutory delegation to instruct/advise each regulated business to set up a "collective

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[14] For detailed examination of the evolution of waste management policy, see Dennis T. C. Tang, Reforming Recycling in Taiwan: Lessons from the U.K., Germany, Sweden, Japan and the U.S.A. (Taipei: Council for Research, Development and Review, Executive Yuan, Dec. 1997).

[15] The annual rate of return is, for example, the ratio of wasted general containers collected by the relevant enterprises compared to the general containers produced by the same enterprises within a specified time period. Id., art. 3(9).

[16] Under art. 23-1 of the Waste Disposal Act, a company which violates measures promulgated in accordance with the authorization of sec.2, art. 10-1 shall be punished by a fine of between NT$ 20,000 and NT$ 50,000; serious violations may result in suspension of business for a time period of between 1 month and 1 year.

[17] A deposit-refund system is a fee with a rebate: those who generate a waste, or purchase a reusable product, must pay a deposit on the item; when they return the item for proper treatment, they receive a refund. The deposit provides an incentive for return. See, e.g., Art. 8 of the Measures for Collection, Clean-up and Disposal of Wasted General Containers (promulgated on April 15, 1994, repealed on Sept. 10 1997).

[18] Based on the wording of the section, there are at least 6 categories of enterprises: manufacturers of products, manufacturers of packing material/containers, importers of products, importers of packing material/containers, sellers of products, and sellers of packing material/containers.

organization"[19] for recycling. Many, perhaps most, companies in these regulated business have, by paying "disposal fees" negotiated among themselves, established a "recycling fund" within their industry association. It is these business associations, rather than each and every individual company, that actually conducted recycling. Such a de facto shift of recycling function did not, however, solve the thorny problem of imposing sanctions. Whenever there was a failure in meeting the annual rate of return, the TEPA had insisted that the regulated enterprises/companies, rather than their association or "collective organization", should be sanctioned since it is the former that are legally responsible for recycling. Yet the regulated enterprises/companies are numerous and the individual obligation for each and every company has not been defined in any way. Those that have joined and paid recycling fees to a collective organization argued that they had performed their legal obligation and urged the TEPA to punish those that had not joined or paid fees to a collective recycling organization. It seems evident that such an ill-conceived regulation regime could only result in lax enforcement. The credibility of the marvelous "annual rate of return" achieved has been widely questioned.[20]

To meet mounting criticisms, the TEPA announced a reform plan in January 1997 [21] integrating the then-existing 21 collective recycling organizations into 8 recycling funds. Starting from July 1, 1998 the then-existing 8 recycling funds were further merged into one, the Resource Recycling Management Fund, commonly known as the "Recycling Fund". As anticipated, the performance of the state-run "Recycling Fund" has not been satisfactory. Instead of defining an accurate share (in accurate percentage) of the responsibility for each category of the "producers", and developing specific formations to calculate the exact amount and sort of recyclables to be collected or recycled by each and every company, the TEPA opted for enacting the Recycling Act.

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[19] Every measures for collection, clean-up and disposal promulgated by the TEPA contains such a provision. See, e.g., Art. 21 of the Measures for Collection, Clean-up and Disposal of Wasted General Containers (promulgated on April 15, 1994, repealed on Sept. 10 1997).

[20] For the official statistics of the recyclables collected, see Dennis T. C. Tang, Chapter 14: Taiwan, in Environmental Law and Enforcement in the Asia-Pacific Rim 463 (Table 14.2) (Sweet & Maxwell Asia, 2002).

[21] The "four-in-one" means to integrate the local communities, recycling merchants, local governments and the Collective Fund into a working scheme. See TEPA, Recycling Four-in-One: Planing Report (Dec. 20, 1996).

2. Regulatory Framework of the Recycling Act

The Recycling Act was passed by the Legislative Yuan on June 4, 2002, and promulgated by the President on July 3, 2002. The Act contains 31 articles in 6 chapters, i.e., General Provisions, Management on Source, Operation Management, Assistance and Awards, Penalties, and Supplementary Provisions. The Act shall come into force one year after promulgation.[22] It declares, at the very outset, that the purposes of this Act are to conserve natural resources, reduce the generation of wastes, further materials re-utilization, lessen environmental load, and establish a sustainable community.[23]

Article 2 defines the basic terms used in this Act. The objects to be recycled, literally known as "recyclable resources" yet commonly known as "recyclables", are "materials, the functions of which have been reduced, yet which still are economically and technologically reusable and which are publicly designated or approved in accordance with this Act for reuse or recycling". "Reuse" means activities that do not change the form of the original materials, yet directly reuse recyclable materials or reuse recyclable materials after wholly or partially restoring the materials' original functions through appropriate procedures. "Recycling" means activities which, by changing the form of the original materials or by combining original materials with other materials, make the recyclables function as raw materials, fuels, fertilizers, feed stuff, filling, soil amendments, or other uses approved by the Regulatory Agency of the Central Government, namely TEPA. Though the Act does not explicitly specify which parties are responsible for reuse and recycling, it does define the subject of the Act: enterprises.[24] Furthermore, products must be produced with over a specific percentage of recycled content, in order to be classified as "recycled products." An excerpt of the Act can be found in Appendix.

3. Trade-Related Environmental Measures Contained

Trade-related environmental measures (TREMs) can be taken

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[22] § 31, Recycling Act.

[23] § 1, Recycling Act.

[24] Enterprise means a corporation, partnership, institution, non-juristic entity, or other organization so designated by the Responsible Agency at the Central Government level, that engages in production, manufacturing, transportation, sales, education, research, training, construction, and other services. § 2-6, Recycling Act.

unilaterally or multilaterally. Multilateral TREMs include measures taken in accordance with, or pursuant to, Multilateral Environmental Agreements (MEAs). All the TREMs contained in the Recycling Act are unilateral.

The TREMs adopted in the Act can be roughly divided into two categories: command-and-control regulations (CAC regulations) and economic incentives/instruments. The TREMs supported by CAC regulations include packaging requirements (such as labeling and take-back obligations specified in article 11), product standards for recycled products (article 16), process and production method standards (such as recycled content requirements prescribed in article 12), trade bans or restrictions (article 17) and use prohibition (article 13). The TREMs employing economic incentives/instruments include (environmental) subsidies (article 24) and prioritized government procurement (article 22).

III. THE BASICS OF THE GATT/WTO RULES

The General Agreement on Tariffs and Trade (GATT) arose out of the world's disastrous experiences of the 1930s and 1940s. Believing that high tariffs and other impediments to free trade had led to the Great Depression and had contributed to the international instability culminating in World War II, the leading trading nations agreed in 1947 to two fundamental principles: the most-favored nation and national treatment principles. Together, they form the core discipline of trade law regime--- non-discrimination.

1. GATT Principles

GATT Article I, the "most-favored nation" (MFN) principle, requires contracting Parties to ensure that if special treatments (advantages) are given to the "like" products (goods or services) of one country, they must be given to all WTO members. No one country should receive favors that distort trade.[25] GATT Article III, the "national treatment" principle, requires contracting Parties treat imported "like"' products no less favorably than "like" domestic products. In short, the "most-favored nation" principle

[25] There are two major exceptions to this rule: regional trade agreements and developing countries, especially the least developed countries.

ensures no discrimination among foreign "like" products (goods and services); while the "national treatment' principle ensures no discrimination among domestic and foreign "like" products (goods and services). The crux lies in the interpretation of the so-called "like" products.

Other important obligations imposed by the GATT include Article X, the transparency obligation, requiring trade regulation to be published promptly and administered uniformly and impartially, and Article XI, the prohibition of quantitative restrictions on import and export of products.

GATT Article XX, known as the general exceptions provision, allows Members to take measures inconsistent with other GATT obligations "if they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade." The two exceptions most relevant to TREMs are :

Article XX (b): measures "necessary to protect human, animal or plant life or health", and

Article XX (g): measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption".

Analyzing whether a TREM violates the GATT generally proceeds in two steps. First, TREMs may conflict with some fundamental GATT principles. For instance, a State that imposes more burdens on imported products than on domestically produced ones might violate GATT Article III, which requires equal national treatment for all imported and domestic products. Second, once a violation of a substantive GATT requirement has been found, the analysis shifts to GATT Article XX (the "general exceptions"). In the case of TREMs, the question becomes whether Article XX (b) or XX (g) can apply to save the otherwise GATT-incompatible measures. It is here that the greatest uncertainty arises.

Several GATT dispute resolution panels have held that to be "necessary to protect human, animal or plant life or health", as required for the exception under Article XX (b), no alternative GATT-consistent measure must be available and the measure in question must restrict trade to the least extent possible.[26] Panels have also held that to fall within the

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[26] See, e.g., Panel Report on "United States Section 337 of the Tariff Act of 1930 and Thailand–Restrictions on Importation of, and Internal Taxes on Cigarettes", GATT, BISD 37S/200, paras. 5.36-5.39; Panel Report on "United States – Restrictions on Imports of Tuna", GATT, BISD, 39S/155, para. 5.27-5.30, reprinted in 30 I. L.M. 1594 (1992) [hereinafter Tuna/Dolphins I].

Article XX (g) exception for measures "relating to the conservation of exhaustible natural resources", the measure must be "primarily aimed at " conserving natural resources.[27] Such decisions have been criticized by environmentalists as constructing the exceptions too stringently and consequently too deferential to free trade concerns, yet too ignorant of environmental concerns.[28]

2. From Marrakesh to Doha

The past two decades have witnessed the rapid development of law and policy in respect of both environmental conservation and international trade. Increasingly, actions concerning the environment touch on international trade, and vice versa. The recognition that the two spheres of law and policy-making must come together in support of sustainable development was affirmed at the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro.[29] Paragraph 2.10(d) of Agenda 21 calls on the international community to "ensure that environment and trade policies are mutually supportive, with a view to achieving sustainable development."

Two years after Rio, the countries of the world in Marrakesh agreed to establish a World Trade Organization (WTO) and to strengthen the General Agreement on Tariffs and Trade (GATT). The ministers also decided to establish a Committee on Trade and Environment (CTE) for "identifying the relationship between trade measures and environmental measures, in order to promote sustainable development", and making appropriate recommendations on whether any modifications of the provisions of the multilateral trading system are required." Since February 1995 the CTE has met about 40 times and reached some preliminary conclusions. At the

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[27] See, e.g., Panel Report on "Canada - Measures Affecting Exports of Unprocessed Herring and Salmon", Mar. 22, 1988, GATT, BISD, 35S/98, para. 6.39 (1988).

[28] For instance, Esty has suggested that "the pivotal word 'necessary' should be reinterpreted to mean 'not clearly disproportionate in relation to the putative environmental benefits and in light of equally effective policy alternatives that are reasonably available." See Daniel C. Esty, Greening the GATT: Trade, Environment, and the Future 222 (1994).

[29] See Rio Declaration on Environment and Development, Principle 12 (The world's governments called on each other to "cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation").

fourth Ministerial Conference in Doha, Qatar, in November 2001, ministers agreed to launch new negotiations on a range of subjects, including certain aspects of the environment and trade linkage. The pertinent Doha Mandate Paragraph 31 reads as follow:

> With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome, on:
>
> (i) the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question.

Currently the CTE Special Session is deliberating the mandate with a goal to conclude the negotiation prior to January 1 of 2005.[30]

IV. COMMAND-AND-CONTROL REGULATIONS OF THE RECYCLING ACT AND THE GATT/WTO RULES

1. Packaging requirements

There are generally two types of packaging requirements: (a) content and other requirements that must be met for packaging to be allowed to be used and (b) process- related requirements concerning return, reuse, recycling, or disposal of packing materials. These give rise to separate trade-related concerns.

As a general matter, foreign suppliers may need more packaging to transport their products over the greater distances to their export markets than do domestic suppliers. Though cost-increasing requirements concerning packaging materials may affect foreign suppliers more than they

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[30] See Note by the Secretariat, *Compilation of Submissions under Paragraph 31(i) of the Doha Declaration* (TN/TE/S/3, 31 January 2003) for a summary of the opinions among negotiating parties.

do domestic suppliers, such a disadvantage is not discrimination per se but a consequence of international trade. Attentions should be focused on whether such requirements would impose burdens so improportionately as to constitute "disguised restrictions on international trades" as prohibited by the chapeau of Article XX cited above.

(1) "Packaging as such" requirements

There are at least two "packaging as such" provisions in the Recycling Act. Firstly, Article 12, Section 2, Item 3 provides that TEPA may specify products, constructions or enterprises to employ refillable containers during their research, design, manufacture, mass production, sale or construction stages. Secondly, Article 14 prescribes that TEPA may limit the product-to-packaging ratio, the number of layers, and the kind and amount of materials used for packaging of specified products. Both requirements are "product standards" adopted for minimizing packaging wastes. As a general principle, domestic environmental regulations are not judged to be inconsistent with the GATT as long as the nondiscrimination strictures of GATT Articles I and III are met. To be noted, in Danish Bottle Case[31] the European Court of Justice overturned the ban on sales without official authorization of the containers used as unnecessarily disruptive to trade in proportion to the added environmental benefits. No such worry seems warranted as there is no sanction at all for a violation of the refillable containers requirement prescribed in Article 12. In contrast, violating the product-to-packaging ratio, number of layers, or packaging materials requirements may result in administrative penalties or even shutdown of business.[32]

Both of these "packaging as such" provisions are applicable to the imported "like" products.[33] This concerns another important issue. As there is no definition of "like products" in the GATT, the practice has been for dispute panels to determine what constitutes a "like product" on a case by case basis, taking into account the objective and purposes of the regulation or measure. Other criteria, such as the nature of the product, the product's end uses in a given market, consumers' tastes and habits, the product's

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[31] Case 302/86, Commission of European Community v. Kingdom of Denmark [1988] E.C.R. 4607, reprinted in Trade & Environment: The Search for Balance, Vol. II (James Cameron, Paul Demaret & Damien Geradin eds.) 430, at 445 (1994) [hereinafter Danish Bottles].

[32] § 26-I-3, Recycling Act.

[33] §§ 11-III & 14-II, Recycling Act.

properties, nature and quality, its commercial value, price and substitutability, should also be taken into account.[34] It is important to note that the above criteria are applied to the final product and its physical characteristics. Any differences in the processing or production of a product are irrelevant for "like product" determinations in the GATT.[35]

(2) Process-related requirements

There are several process-related packaging requirements in the Recycling Act. Article 11 prescribes that enterprises designated (by TEPA) shall undertake the following activities from the date specified:

(a) *Recycling categories of waste in the manner specified;*

(b) *Labeling* the product to indicate the materials used and the recycled content in the product;

(c) *Labeling* the product with the sortable materials recycling mark;

(d) *Other matters prescribed* by the TEPA.

Moreover, the importers of "like products" must bear the same obligations at the sale phase.[36] The manufacturers or importers violate such process-related requirements are subject to administrative penalties or even shutdown of business set out in Article 26 of the Act.

The above requirements are a sort of take-back obligations, which generally require manufacturers to provide a mechanism by which consumers of their products may return to the manufacturer certain materials associated with their products. By forcing byproducts back into the hands of manufacturers, take-back obligations shift to manufacturers some of the costs of handling and disposing of the byproducts, providing a disincentive to incorporating them in the end product to begin with. The added costs of take-back programs can disproportionately burden imports. Higher transportation costs generally make it more costly for importers to

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[34] See Report of the Working Party on "Border Tax Adjustment", GATT, BISD, 18S/97, para.18; Panel Report on "United States - Measures Affecting Alcoholic and Malt Beverage", GATT, BISD, 39S/206, para.5.75 [hereinafter U.S. Alcohol]; Panel Report on "United States - Taxes on Automobiles", GATT, DS31/R, reprinted in 33 I.L.M. 1397, paras. 5.7 (1994) [hereinafter U.S. Auto Taxes].

[35] See Panel Report on Tuna/Dolphins I, paras. 5.11-5.15 (1991); Panel Report on "United States - Restrictions on Imports of Tuna", reprinted in 33 I.L.M. 839, paras. 5.8-5.9 (1994) [hereinafter Tuna/Dolphins II]; Panel Report on U.S. Alcohol, supra note 30, para. 5.19; Panel Report on U.S. Auto Taxes, supra note 30, at paras. 5.52-5.54.

[36] §11-III, Recycling Act.

reclaim returned materials than for domestic producers to do so. The materials subject to the obligation, such as drink containers, may also need to be strengthened to withstand the increased use and shipping, further increasing transportation and materials costs. To arrange for taking back returned materials, foreign suppliers may even be required to establish a larger, more permanent presence in the market imposing the take-back obligation than would otherwise be warranted by their market share. In addition, environmental conditions and technical expertise in the producing State may differ from those justifying the take-back obligation in the State imposing them. All of these greater burdens on importers result in higher costs and can effectively pose a barrier to smaller producers, particularly in developing countries.

Despite of all these, take-back requirements seem compatible with GATT rules as long as they do not violate the "national treatment" obligation (GATT Article III) by a disguised restriction to disproportionately burden foreign suppliers. For instance, the Danish Bottles Case[37] confirmed the take-back requirement backed up with deposit and return system, while overturning the ban on sales without official authorization of the containers used (as discussed above).

2. Product Standards vs. Process and Production Method Standards

A distinction must be made between product standards and process standards (PPMs) [38] . Whereas product standards lay down the characteristics a product itself should meet, such as performance, quality, safety or dimension standards, PPM standards specify how the products should actually be produced. Product regulations, on the other hand, try to control the effects that products have where they are consumed. If a product is traded internationally, these effects will take place in the domestic environment of the importing country. Under GATT rules, a country may require that imported products comply with the same product regulations as domestically produced products, with a rider that these regulations can be challenged if they constitute unnecessary obstacles to trade.

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[37] Commission of European Community v. Kingdom of Denmark, Case 302/86, [1988] E.C.R. 4607, reprinted in International Environmental Law Reports, Vol. 2 (Cairo A. R. Ross ed.) 544 (2001).

[38] The term "PPMs" refers to processes and production methods and derives from terminology used in the Agreement on Technical Barriers to Trade in the General Agreement on Tariffs and Trade (GATT).

(1) Product standards

Article 16 of the Recycling Act requires that the recyclables andrecycled products shall meet National Standards.[39] Failure to meet National Standards will result in disqualification for receiving subsidies and awards provided in the Act.[40] Though GATT does provide broad leeway for countries in setting product standards, the National Standards setting should follow as closely as possible the principles adopted in the Agreement on Technical Barriers to Trade (TBT Agreement). These include notification, transparency, and use of international standards when appropriate.

(2) PPM Standards

In the trade and environment context, a main issue has been whether or not governments should be able to restrict trade in products based on their process and production methods (PPMs). Trade rules generally allow countries to restrict imports of products when they do not comply with national standards specified for the physical characteristics of these products.[41] However, trade rules are interpreted in most circumstances as not allowing countries to restrict imports of products based on how they are produced. Environmentalists have been questioning such interpretation since many processes and production methods can cause severe environmental degradation.

Depending on whether or not the environmental impact of the PPM is transmitted by the product itself, PPMs may be distinguished into product-related PPMs[42] and non-product-related PPMs.[43] The product-

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[39] Where no National Standards are applicable, the Responsible Agency for the Enterprise Associated with the Industry at Issue may, in consultation with the Responsible Agency at the Central Government level, promulgate [new] standards. § 16-I, Recycling Act.

[40] §16-II, Recycling Act.

[41] There are rules about the process of discrimination, of course — the SPS agreement, for example, has a preference for international standards when setting restrictions on pesticide residue levels — but the principle of discrimination is accepted.

[42] In this case, the method by which the product was produced has changed the characteristics of the product so that it may pollute or degrade the environment when it is consumed or used. This type of PPM is rare in the environmental realm, though abounding in the area of food safety and health.

[43] In this case, the process or production method may lead to environmental degradation in the producing country and/or in other countries in the form of "production externalities." See generally OECD, Trade and Environment: Processes and Production Methods (1994).

related PPMs are generally addressed through product standards. The non-product-related PPMs can be further divided into four categories depending on the type and scope of the environmental degradation caused by the PPM: pollution across boundaries,[44] migratory species and shared living resources,[45] global environmental concerns,[46] and local environment concerns. The regulation of solid wastes, including recycling, is mainly of local environmental concern where there are no immediate spillover effects on other countries.

There are at least two provisions in the Recycling Act involving PPMs. Article 12, Section 2, Item 1 requires the designated enterprises, during their research, design, manufacture, mass production, sale or construction stages, to employ easily dissolved, separated or recycled materials. In addition, Article 12, Section 2, Item 2 requires the designated enterprises, during their research, design, manufacture, mass production, sale or construction stages, to employ a certain percentage or amount of recyclables. The former provision is likely classified as non-product-related PPMs, as they make no difference to commercial or practical substitutability of the products. The latter, however, is an unusual example of a product-related PPM requirement, where the environmental effects occur at the point of production rather than consumption. In other words, it involves a "production externality" more than "consumption externality", although the issue of disposal or landfill capacity in the consuming country is also important.

Trade law does not question the right of countries to discriminate based on product-related PPMs, yet generally prohibits discrimination based upon non-product-related PPMs. This prohibition, however, makes little environmental sense. The way a product is produced is one of the three central questions for an environmental manager: how is it made, how is it used and how is it disposed of. Domestic environmental regulations on PPMs abound – factories are told how much pollution they may emit, forest products companies are told how and where they may harvest trees, and mining companies are told how they must treat their waste, and how they must restore their sites after mine closure. So from an environmental perspective, it makes sense to also be able to discriminate at the border

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[44] Examples are transboundary air pollution and pollution of a shared river or lake.

[45] Examples are the depletion of high-seas fisheries or the threatening or endangerment of migratory marine mammals.

[46] Examples are depletion of the ozone layer climate change, endangerment of species, and loss of biodiversity.

between otherwise like goods that were produced in clean and dirty ways.

In practice, however, allowing discrimination based on non-product-related PPMs would present some difficulties for the trading system. It would give governments greater opportunity in their struggle to protect their industries unfairly against foreign competition. Also, developing countries might worry that if the WTO allows such PPM-based discrimination on environmental grounds, it will also be forced to allow it on social grounds, such as human rights, labor standards and so on, increasing the scope of the threat to their exports. Some have suggested non-product-related PPMs be further distinguished into methods which are intrinsically bound up with the processing or production, and methods which form the economic or social backdrop to production, and treat the former as product-related PPMs.[47]

Co-operation, including MEAs, is a commonly recommended way to prevent PPM-based environment and trade conflicts. That is, countries should collectively agree either to harmonize standards or to live with a negotiated menu of different national standards. However, the desirability and feasibility of harmonizing environmental PPM standards among countries will differ depending on the scope of the environmental degradation caused by the PPM, i.e. whether it is purely local or spills over to have transboundary and global environmental effects. Because environmental considerations and preferences differ markedly among countries, they will have varying PPM requirements and standards for addressing local pollution and domestic environmental degradation. As a general rule, full harmonization of locally oriented PPM standards is of doubtful necessity and feasibility. In sum, the requirement of employing easily dissolved, separated or recycled materials in the Act is likely to be judged as incompatible with the extant GATT/WTO rules.

Recycled content obligations can pose problems for foreign suppliers similar to those posed by take-back obligations. Likewise, recycled content obligations are generally intended to ensure that less of the material at issue is produced. Foreign suppliers, however, may be unable to secure adequate quantities of the recycled materials in their home state, forcing them to incur the added costs of importing them. If the only source of such recycled materials is the state imposing the obligation, the obligation may also constitute a violation of the GATT Article III: 5 obligation not to maintain quantitative regulations requiring that a specified proportion of a product be supplied from domestic sources. Manufacturers may also be forced to

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[47] Ilona Cheyne, *Environmental Unilateralism and the WTO/GATT System*, 24 Ga. J. Int'l & Comp. L. 433, at 445 (1995).

make costly changes to manufacturing processes to handle the recycled materials. These costs can pose a barrier to producers with smaller market shares, such as smaller producers or producers supplying several markets, not all of which impose similar recycled content requirements. Nevertheless, the recycled content requirement above as a product-related PPM does not on its face discriminate between foreign and domestic products and would thus appear to be compatible with GATT/WTO rules.

3. Trade Bans or Restrictions

Trade bans or restrictions are measures placed on imported products when they do not comply with an environmental PPM standard or requirement specified by the importing country.[48] A product may be totally banned from the market or only allowed to enter when it meets the domestic PPM requirement. Article 17 of the Recycling Act authorizes TEPA, with the aim of effective re-utilization of domestic recyclables, to *restrict or ban the import and/or export of the recyclables*. As the authorization is so broad (rather than narrowly tailored to be *the least-trade restrictive*) and may not be of purely environmental concern, it seems difficult to justify under the General Exception Provisions of GATT (Art XX).

4. Domestic Prohibited Goods (DPGs)

Article 13, Section 1 prescribes that TEPA may restrict or prohibit, by public announcement, the uses of specified articles, packaging or containers at specified public and/or private premises. Though the Article itself does not specify the purpose of imposing such a ban, it is generally believed that it is based upon the understanding that some materials are not biodegradable and therefore their consumption should be more effectively discouraged. Recently TEPA has, pursuant to a similar provision[49] of the WDA, made two public announcements banning the use of containers and shopping bags made of polyethlene (PE), polypropylene (PP); polystyrene

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[48] Trade bans and restrictions might be employed to address non-product-related PPMs where the production being restricted causes environmental damage or threatens species conservation. Bans or restrictions might also be placed on the export of products unless the receiving country has certain PPM standards in place, such as the ability to process or hazardous waste.

[49] Article 21 of WDA authorizes TEPA may prohibit or restrict, by public announcement, the manufacture, importation, sale, or use of articles, packaging or containers that might seriously pollute the environment.

(PS) and polyvinyl chloride (PVC) at various premises.[50]

Such consumption bans or restrictions apply only to the domestic market and thus involve another issue – domestically prohibited goods (DPGs), products that states have banned or severely restricted for sale or consumption domestically, but allow to be exported to other states. The term may cover not only hazardous wastes, but also discarded materials suitable for recycling or reclamation, as well as such regulated consumer goods as pharmaceuticals, cosmetics, and agricultural chemicals like pesticides. Reasons for banning or restricting domestic sales may include danger to the health and safety of humans or animals and danger to the environment.

Trade in DPGs is of special concern to developing countries, because they often lack the technical expertise to assess the dangers of such products and must rely on the work done by experts in developed countries. Some developing countries have long sought an international regime requiring exporters of DPGs to share the burden of ensuring that DPGs do not inappropriately end up endangering the inhabitants or environment of importing states. In 1991 a working group under GATT 1947 recommended a draft Decision on Products Banned or Severely Restricted in the Domestic Market. That draft decision would have required adherents to publish any domestic restrictions, notify GATT thereof and "consider" export restrictions. Opposition by the United States, however, based largely on that State's preference for prior informed consent (PIC) procedures, precluded final adoption of the decision. The US position is that states should be informed about DPGs but not restricted in their ability to choose whether to accept them. Due to the ambiguity of trade laws, the trade ban/restriction provisions in both Recycling Act and WDA do not constitute violations of the GATT/WTO rules for the time being.

V. ECONOMIC INSTRUMENTS OF THE RECYCLING ACT AND THE GATT/WTO RULES

Economists tend to view environmental pollution as an economic

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[50] See TEPA GAZETTE No. 175, at 112-113 (July 2002) and No. 176, at 88-89 (Aug. 2002).

problem.[51] They believe that pollution is the result of a market failure.[52] Specially, private markets may provide inadequate environmental protection when environmental values are externalities inadequately reflected in the prices consumers pay for good and services, or when environmental values are public goods from which all individuals benefit but in which no single individual has an adequate incentive to invest. To correct this market failure, economists would require private decision makers to internalize the externalities through governmental intervention. In general, four means of intervention are available: CAC regulations, subsidies, charges, and emissions trading (also known as "transferable discharge permit" (TDP) system).[53]

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[51] See, e.g., Larry E. Ruff, the Economic Common Sense of Pollution, reprinted in Microeconomics: Selected Readings 498 (Mansfield ed., 2d ed. 1975) ("We are going to make very little real progress in solving the problem, which must be understood in economic terms") See generally, William J. Baumol & Wallace E. Oates, The Theory of Environmental Policy (2d ed. 1988); J. H. Dales, Pollution, Property, and Prices (1968).

[52] Bator, *Anatomy of Market Failure*, 72 Q.J. Econ. 31(1958). For a criticism of the confusion about this concept, see Alan Randall, *The Problem of Market Failure*, 23 Nat. Resources J. 131 (1983).

A market in this context should be understood as an arrangement in which people pay for the things they do that affect others. Except when damage suits can successfully be brought to recover for the injury, these environmental effects are outside the pricing system. However, serious institutional barriers prevent tort litigation from being an effective tool for recovering environmental damages. For a discussion of these barriers and the need for an administrative compensation scheme, see, e.g. *Developments in the Law: Toxic Waste Litigation*, 99 Harv. L. Rev. 1458,1602-30 (1986); Palma J. Strand, Note, *The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation*, 35 Stan. L. Rev. 575 (1983).

[53] Liability rules may be regarded as the fifth approach in controlling externalities. See generally A. Mitchell Polinksy, *Controlling Externalities and Protecting Elements: Property Right, Liability Rule, and Tax-Subsidy Approaches*, 8 J. Legal Stud. 1 (1979). Under the liability rule, the polluter is obliged to pay the victim compensation for damages suffered. The amount of damages is set by a collective body, usually a court, and need not reflect what the entitled party would have been willing to accept or the actual reduction in the value of his entitlement. Some commentators believe that an appropriately defined strict liability approach has lower deadweight costs and information costs compared to quantity regulations and pollution charges or taxes. See, e.g.., Mitchell J. White & Donald Wittman, *A Comparison of Taxes, Regulation, and Liability Rules Under Imperfect Information*, 12 J. Legal Stud. 413 (1983). Nonetheless, litigation has commonly proved to be an ineffective way of controlling pollution. See, e.g., Richard B. Stewart & James E. Krier, Environmental Law and Policy 255-324 (2d ed. 1978).

Subsidies, pollution charges, and transferable discharge permits are all intended to correct the market failure problem by providing or creating economic incentives for individual polluting sources to control pollution. Thus, they are grouped commonly under the title of economic incentives or economic instruments (EIs).

1. Environmental Subsidies

Article 23 of the Recycling Act mandates TEPA to evaluate periodically technologies for re-use and recycling based on the actual benefits resulting therefrom and to grant awards for excellent performance. Enterprises that engage in the re-utilization of recyclables shall be entitled to tax cuts and/or exemptions for their investments in research, facilities, machines, and equipment for re-utilization. Both government awards and tax relief are typical subsidies.

Both trade and environment communities oppose the so-called perverse subsides – subsidies that are harmful to the environment and economy. Perverse subsidies distort prices. From an environmental perspective, they artificially lower the costs of doing business in an environmentally unsustainable way. Subsidies in the fisheries sector, for example, include low-interest loans to fisherman, fuel tax exemptions, and outright grants to purchase gear, boats and other infrastructure. These measures all lower the cost of fishing and lead to overexploitation of the resource – too many fisherman and too many boats chasing too few fish. To add insult to injury, subsidizing polluting sectors or technologies reduces incentives to develop greener alternatives. From an economic perspective, distorted prices reduce one of the main potential gains from trade – increased efficiency.

Yet not all subsidies are perverse. A subsidy that pays for previously unpaid environmental benefits may be socially desirable. For example, it may make sense for governments to subsidize developing and disseminating solar technologies as alternatives to fossil fuels since it could lower emissions of greenhouse gases. If environmental costs are factored in, such subsidies actually move prices closer to their true level.

The Agreement on Subsidies and Countervailing Measures (SCM Agreement) identifies three categories of subsidies, depending on their effect on international trade, and provides for different types of remedy for each category:

(a) prohibited subsidies are subject to an accelerated dispute settlement procedure, and a Member found to grant or maintain such a subsidy

must withdraw it without delay;

(b) actionable subsidies, i.e., subsidies other than prohibited and non-actionable subsidies, can in principle be granted or maintained, but may be challenged in WTO dispute settlement or be subject to countervailing action if they cause adverse effects to the interests of other Members;

(c) non-actionable subsidies, i.e., non-specific subsidies and defined specific subsidies are not subject to countervailing action nor to dispute settlement challenge.

Subsidies prescribed in Article 23 of the Recycling Act seem to promote adaptation of existing facilities to new environmental requirements and therefore fall into the third category. Subject to certain conditions, up to 20 per cent of the cost of adaptation would be considered a non-actionable subsidy.

2. Government Procurement

Article 22, Section 1 provides for that, for the purpose of promoting the re-utilization of resources, all government agencies, public schools, government enterprises, and military agencies shall give priority to the procurement of government-approved environmental goods, domestically produced recyclables, or recycled products with a certain percentage of recycled content. This provision involves the issues of green government procurement and eco-labeling, in addition to product-related PPM requirement.

As government purchases typically make up a large portion of GDP, what governments decide to buy or not buy can have an enormous influence on the economy and environment. This fact has also led many governments to begin thinking about how to "green" their procurement, making it a force for environmental protection. Most such schemes to date have involved a price preference for goods that meet certain criteria. For example, recycled products can be up to 10 percent more costly and will still be bought in Taiwan.[54]

The greening of government procurement may have trade implications. The purchasing requirements may be based on process and production method standards (PPMs), such as the recycled content requirement. Or they may simply require a domestic-level eco-labeling or environmental

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[54] See § 96, Government Procurement Act of 1998.

management certification. And the specifications may be, intentionally or unintentionally, set up in ways that favor domestic producers. The above-cited provision giving priority to the domestically produced recyclables is just one example.

The WTO's Government Procurement Agreement (GPA) is different from most of the WTO agreements, in that it is multilateral. Countries do not automatically subscribe by being WTO members, and in fact only a few currently do, mostly from OECD countries. The focus of the Agreement is to force governments to tender bids for their purchases transparently and fairly. Unlike GATT, the GPA does not prohibit discrimination among like products, but rather focuses on discrimination between foreign and domestic suppliers. It does demand, though, that any requirements should not be "prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade"[55] – a requirement that has yet to be interpreted. It also mandates that technical specifications should be "based on international standards, where such exist; otherwise, on national technical regulations[56], recognized national standards, or building codes."[57] ISO 14001 presumably fits this bill, and arguably, so would most national-level eco-labeling programs.

The term "government-approved environmental goods" employed in Article 22 of the Recycling Act generally refers to eco-labeling programs under which certain products are awarded the right to affix a label attesting to the consumer that the product meets some standard of "environmental friendliness". Eco-labeling programs may serve a wide variety of purposes, but generally are intended to improve the sales and image of the labeled product by identifying products which are preferable, from the environmental standpoint, to similar products. Proponents thus consider eco-labeling programs an alternative to the traditional governmental regulation of industry, by harnessing market forces to shift production and consumption toward less environmentally harmful products and manufacturing processes. Others question their effectiveness, however, arguing that eco-labels rarely give consumers the whole picture, may be based on criteria that became outdated as technology advances, may apply a single set of standards to varying environmental conditions, and may fail to compare products that consumers consider substitutes, thus misdirecting

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[55] See Art. 6.1, GPA.

[56] A national technical regulation, according to the footnote that modifies this text, is any standard set by a recognized body.

[57] See Art. 6.2, GPA.

consumer demand.

The issues raised with respect to eco-labeling include: the applicability of the TBT Code of Good Practice for the Preparation, Adoption, Application of Standards to voluntary eco-labeling programs, the extent to which eco-labeling programs based on non-product-related processes and production methods (PPMs) are covered by the TBT agreements, the effects of eco-labeling programs on international trade, and questions linked to the implementation and management of those programs (selection of criteria, transparency, etc). So far no conclusion has been reached on these issues in the CTE.

Given the possible disadvantages with foreign suppliers' access to an eco-label, especially when their own preferred PPMs do not coincide with those required in the overseas market, the prioritized government procurement based upon "eco-label" prescribed in Article 22 of the Recycling Act should be generally acceptable. However, the prioritized government procurement based upon "domestically produced recyclables" seems to be in violation of the non-discrimination principle[58] embedded in the GPA.

VI. CONCLUSION

The Resources Recycling and Reuse Act 2002 of Taiwan endeavors to strengthen waste recycling by introducing a variety of trade-related environmental measures (TREMs). Various TREMs may conflict with GATT/WTO rules to varying degrees. Whether a conflict between a TREM and GATT/WTO rules exists, and if so, a solution to accommodate the values of both free trade and environmental protection must be decided on a case-by-case basis. Regardless, the compatibility of the TREMs in the Act with the GATT/WTO rules can be analyzed on a generic basis, and the initial findings can be roughly divided into three categories.

Category A: Compatible on its surface or as a matter of principle

The TREMs belonging to this category include:

(1) The "packaging as such" provisions (§12-II-3 employing refillable

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[58] *See* Art. 3.1, GPA.

containers & §14 limiting product-to-packaging ratio, the number of layers, and the kind and amount of materials used for packaging). The "product standards" for minimizing excess packaging wastes as part of domestic environmental regulations are, in general, not judged to be inconsistent with the GATT as long as the nondiscrimination strictures of GATT articles I and III are met. The Danish Bottle Case provides an example.

(2) The requirement that *recyclables and recycled products must meet National Standards* (§16). While the government has plenty of room in setting such "product standards" as part of its domestic environmental standards, it should follow the principles set up in the TBT Agreement to improve the compatibility of such standards with GATT.

(3) The "take-back obligation" in Article 11 prescribing designated enterprises must *recycle waste in specified manners*. Despite their potential of imposing greater burdens on importers and thus effectively posing a barrier to trade, take-back requirements would be compatible with GATT rules as long as they do not violate "national treatment" obligation (GATT Article III) by a disguised restriction to improportionately burden foreign suppliers.

(4) The *recycled content requirement* (§12-II-2). Being characterized as "product-related PPM," such requirement would thus appear to be compatible with GATT/WTO rules so long as it does not discriminate between foreign and domestic products.

(5) *Subsidies* provided in Article 23 of the Act. As environmental subsidies are, at least on the surface, aimed at promoting adaptation of existing facilities to new domestic environmental requirements, they fall into the non-actionable subsidies under the SCM Agreement.

(6) *Prioritized government procurement based upon eco-label programs* (§22). Eco-labeling programs are generally acceptable as long as the requirements or technical specifications therein would not create an unnecessary obstacle to international trade.

Category B: Arguably compatible under the green GATT/WTO

Being characterized as "non-product-related PPMs," the *employing easily dissolved, separated or recycled materials* requirement (§12-II-1) would likely be judged as incompatible with GATT/WTO rules. From the environmental perspective, however, the WTO/GATT regime should consider further distinguishing (or "dividing") non-product-related PPMs

into methods which are *intrinsically bound up with the processing or production* versus methods which form the economic or social backdrop to production, and to treat the former as product-related PPMs.

Category C: Incompatible on its surface or as a matter of principle

The *restriction or banning of the importation and/or exportation of recyclables* (§17) seems difficult to justify under the General Exception Provisions of GATT (Art XX) as the authorization is so broad, rather than narrowly tailored to be *the least-trade restrictive*. In addition, the *prioritized government procurement for domestically produced recyclables* provision (§ 22) is apparently in violation of the non-discrimination principle[59] embedded in the GPA.

Finally, as to the *prohibition of domestic consumption* of specified articles, packaging or containers (§ 13-I), its compatibility with GATT/WTO rules is in an uncertain state because currently no GATT/WTO rules are applicable to DPGs.

Besides the above summary of the initial findings, two points should be made. One is peculiar to Taiwan's international situation; the other is a general suggestion for the further harmonization of environment and trade.

A. Consultation by other states with Taiwan should be encouraged, by unilateral regulatory actions if necessary

In contrast to transboundary movement of hazardous wastes, the regulation (including recycling and disposal) of municipal wastes has generally been regarded as an internal matter or domestic environmental issue. Each country, under the principle of state sovereignty, maintains the sovereign rights to determine domestic environmental policy, and to establish their national environmental standards in accordance with their own domestic situation and policy priorities. However, unilateral TREMs increase the risk of arbitrary discrimination and disguised protectionism. Multilateral TREMs are always preferred. Principle 12 of the Rio Declaration provides that transboundary or global environmental problems should be solved using environmental measures based as far as possible on international consensus. Chapter 39 of Agenda 21 provides that unilateral

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[59] See Art. 3.1, GPA.

trade measures to deal with environmental challenges outside the jurisdiction of the importing states should be avoided.

Currently, Taiwan maintains formal diplomatic relationships with only 26 countries in the world, and has been continuously blocked from participating in the formation of any international environmental agreements within the UN system after her withdrawal from the UN in 1971. Yet, as the 16th largest trading partner in the world, Taiwan has in fact developed robust trade relationships with almost every country. If unilateral regulatory actions can be used to urge other states to enter into consultation/negotiation with Taiwan with the possible result of a more harmonized and robust domestic environmental law regime, such TREMs should be given serious consideration by the Taiwanese government.

B. Sustainable Development Should Become the Guiding Principle for GATT/WTO

As indicated earlier, the prevailing interpretations of the environmental exceptions to the GATT/WTO rules, including the Chapeau of Article XX and Article XX (b) & (g), have been quite narrow and mainly free-trade-minded.

WTO Members were committed not to introduce WTO-inconsistent or protectionist trade restrictions (or countervailing measures) in an attempt to offset any real or perceived adverse domestic economic or competitiveness effects of applying environmental policies. This commitment, however, intends not only to maintain the open, equitable and non-discriminatory nature of the multilateral trading system, but also to serve environmental objectives. More importantly, this commitment is meant to promote sustainable development.

Optimistically, the Appellate Body in the *Shrimp/Turtle* case [60] considered the first preambular paragraph of the WTO Agreement relevant for the interpretation of provisions contained in the various WTO agreements, such as GATT Article XX. By explicitly recognizing the "objective of sustainable development," the preamble shows that "the signatories to Agreements were, in 1994, fully aware of the importance and legitimacy of environmental protection as a goal of national and international policy". The author strongly suggests that sustainable

[60] See United States – Import Prohibition of Certain Shrimp and Shrimp Products (India, Malaysia, Pakistan and Thailand v. United States), reprinted in 2IELR 234, at 254 (1988).

development becoming the guiding principle for interpreting the GATT/WTO rules as the first step of "greening" the trade regime.